What is claimed is:

1. An infrared detector comprising:

a base body;

a detector portion disposed above the base body, configured to detect infrared-ray;

a supporting beam supporting the detector portion above the base body; and

a contactor configured to contact the detector portion with the base body thermally so as to transport thermal energy to be accumulated in the detector portion toward the base body.

2. The infrared detector of claim 1, wherein a cavity is provided at a top surface of the base body, and the supporting beam supports the detector portion above the cavity.

3. The infrared detector of claim 1, wherein the contactor comprises a cantilever including:

a pillar being fixed to the base body, and

a free edge extending from the pillar over the detector portion, the free edge being to be contacted thermally with a top surface of the detector portion.

4. The infrared detector of claim 3, wherein at least a part of the contactor disposed between the pillar and the free edge is made of electrically conductive material.

5. The infrared detector of claim 4, further comprising a control electrode disposed on the base body so that the free edge of the contactor contacts thermally with the top surface of the detector portion by electrostatic attractive force between the part made of electrically conductive material and the control electrode.

6. The infrared detector of claim 4, further comprising a control electrode disposed on the detector portion so that the free edge of the contactor contacts thermally with the top surface of the detector portion by electrostatic attractive force between the part made of electrically conductive material and the control electrode.

7. The infrared detector of claim 1, wherein the detector portion comprises:

an infrared absorption layer configured to absorb the infrared-ray to generate heat; and

a thermoelectric conversion portion disposed under the

infrared absorption layer, configured to convert the heat generated by the infrared absorption layer into an electrical signal.

8. The infrared detector of claim 7, wherein the infrared absorption layer is laminated on the thermoelectric conversion portion.

9. The infrared detector of claim 7, wherein the detector portion further comprises a supporting member configured to support the infrared absorption layer above the thermoelectric conversion portion, the contactor being interposed between the infrared absorption layer and the thermoelectric conversion portion.

10. An infrared image sensor comprising:

a base body;

a plurality of signal lines disposed on the base body;

a plurality address lines intersecting the signal lines;

a plurality of detector portions provided in the cross regions of the signal lines and the address lines, each of the detector portions being connected between the corresponding signal line and the address line, each of the detector portions is configured to detect infrared-ray;

a plurality of supporting beams supporting each of the detector portions above the base body; and

a plurality of contactors configured to contact each of the detector portions with the base body thermally so as to transport thermal energy to be accumulated in each of the detector portions toward the base body.

11. The infrared image sensor of claim 10, wherein a plurality of cavities are arranged at a top surface of the base body, and each of the detector portions is supported by the supporting beam above the cavities respectively.

12. The infrared image sensor of claim 10, wherein each of the contactors comprises a cantilever including:

a pillar being fixed to the base body, and

a free edge extending from the pillar over the corresponding detector portion, the free edge being to be contacted thermally with a top surface of the corresponding detector portion.

13. The infrared image sensor of claim 12, wherein at least a part of the contactor disposed between the pillar and the free edge is made of electrically conductive material.

14. The infrared image sensor of claim 13, further comprising a plurality of control electrodes disposed on the base body so that the free edge of each of the contactors contacts thermally with the top surface of the corresponding detector portion by electrostatic attractive force between the part made of electrically conductive material and the corresponding control electrode.

15. The infrared image sensor of claim 13, further comprising a plurality of control electrodes disposed respectively on the corresponding detector portion so that the free edge of each of the contactors contacts thermally with the top surface of the corresponding detector portion by electrostatic attractive force between the part made of electrically conductive material and the corresponding control electrode.

16. The infrared image sensor of claim 10, wherein each of the detector portions comprises:

an infrared absorption layer configured to absorb the infrared-ray to generate heat; and

a thermoelectric conversion portion disposed under the infrared absorption layer, configured to convert the heat generated by the infrared absorption layer into an electrical

signal.

17. The infrared image sensor of claim 16, wherein the infrared absorption layer is laminated on the thermoelectric conversion portion.

18. The infrared image sensor of claim 16, wherein the detector portion further comprises a supporting member configured to support the infrared absorption layer above the thermoelectric conversion portion, the contactor being interposed between the infrared absorption layer and the thermoelectric conversion portion.

19. The infrared image sensor of claim 10, wherein each of the contactors contacts thermally with a top surface of the corresponding detector portion in blanking period for resetting temperature of the corresponding detector portion at initial value, and leaves from the top surface of the corresponding detector portion in selecting period for detecting the infrared-ray by the corresponding detector portion.

20. The infrared image sensor of claim 18, wherein the contour

of the infrared absorption layer covers a larger area than an area occupied by the thermoelectric conversion portion.

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